**Serial Number:** 09/380,826A

**ENTERED**

CRF Processing Date: 1/10/2001
Edited by:
Verified by: _____ (STIC staff

RECEIVED JAN 23 2001 TECH CENTER 1600/2900

PHB

- ☐ Changed a file from non-ASCII to ASCII

- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

- ☐ Edited a format error in the Current Application Data section, specifically: _____

- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____

- ☐ Added the mandatory heading and subheadings for "Current Application Data".

- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____

- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____ **RECEIVED**

- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. JAN 23 2001

- ☐ Inserted colons after headings/subheadings. Headings edited included: _____ TECH CENTER 1600/2900

- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____

- ☑ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____

- ☐ Inserted mandatory headings, specifically: _____

- ☐ Corrected an obvious error in the response, specifically: _____

- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

- ☐ Corrected an error in the Number of Sequences field, specifically: _____

- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

- ☐ Other: _____

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form. 3/1/95

```
        RAW SEQUENCE LISTING              DATE: 01/18/2001
        PATENT APPLICATION:  US/09/380,826A     TIME: 16:14:19

        Input Set : A:\Pto.amc
        Output Set: N:\CRF3\01182001\I380826A.raw


 2 <110> APPLICANT: Chappel, Rod
 4 <120> TITLE OF INVENTION: LEPTOSPIRA PATHOGENS
 7 <130> FILE REFERENCE: DAVIE79.001APC
 9 <140> CURRENT APPLICATION NUMBER: 09/380,826A
10 <141> CURRENT FILING DATE: 1999-11-22
12 <150> PRIOR APPLICATION NUMBER: PCT/AU98/00145
13 <151> PRIOR FILING DATE: 1998-03-06
15 <150> PRIOR APPLICATION NUMBER: AU PO5494/97
16 <151> PRIOR FILING DATE: 1997-03-07
18 <160> NUMBER OF SEQ ID NOS: 26
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 1477
24 <212> TYPE: DNA
25 <213> ORGANISM: Leptospira fainei
27 <400> SEQUENCE: 1
28 gatcatggct cagaactaac gctggcggcg cgtcttaaac atgcaagtcg agcggggtag 60
29 caatacctag cggcgaacgg gtgagtaaca cgtggtaatc ttcctccgag tctgggataa 120
30 ctttccgaaa ggaaagctaa taccggatag tcctgttgga tcacaagatt tgataggtaa 180
31 agatttattg cttggagatg agcccgcggc cgattagcta gttggtgagg taatggctca 240
32 ccaaggcgac gatcggtagc cggcctgaga gggtgtccgg ccacaatgga actgagacac 300
33 ggtccatact cctacgggag gcagcagtta agaatcttgc tcaatggggg aaaccctgaa 360
34 gcagcgacgc cgcgtgaacg aagaaggtct tcggattgta aagttcatta ggcaggaaaa 420
35 ataagcagca atgtgatgat ggtacctgcc taaagcaccg gctaactacg tgccagcagc 480
36 cgcggtaata cgtatggtgc aagcgttgtt cggaatcatt gggcgtaaag ggtgcgtagg 540
37 cggatttgta agtcaggtgt gaaaactgcg ggctcaaccc gtggcctgca cttgaaacta 600
38 caagtctgga gtttgggaga ggcaagtgga attccaggtg tagcggtgaa atgcgtagat 660
39 atctggagga acaccagtgg cgaaggcgac ttgctggctc aaaactgacg ctgaggcacg 720
40 aaagcgtggg tagtaaacgg gattagatac cccggtaatc cacgccctaa acgttgtcta 780
41 ccagttgttg ggggttttaa ccctcagtaa cgaacctaac ggattaagta gaccgcctgg 840
42 ggactatgct cgcaagagtg aaactcaaag gaattgacgg gggtccgcac aagcggtgga 900
43 gcatgtggtt taattcgatg ataccccaaa aacctcacct gggcttgaca tggatctgaa 960
44 tcatgtagag atatatgagc cttcgggcag attcacaggt gctgcatggt tgtcgtcagc 1020
45 tcgtgtcgtg agatgttggg ttaagtcccg caacgagcgc aacccctatc gtatgttgct 1080
46 accttaagtt gggcactggt acgaaactgc cggtgacaaa ccggaggaag cgggggatga 1140
47 cgtcaaatcc tcatggcctt tatgtccagg gccacacacg tgctacaatg gccgatacag 1200
48 agggtcgcca actcgcaaga gggagctaat ctctaaaagt cggtcccagt tcggattggg 1260
49 gtctgcaact cgaccccatg aagtcggaat cgctagtaat cgcggatcag catgccgcgg 1320
50 tgaatacgtt cccggacctt gtacacaccg cccgtcacac cacctgagtg gggagcaccc 1380
51 gaagtggtct ttgttaaccg taaggagaca gactactaag gtgaaactcg taagggggt 1440
52 gaagtcgtaa caaggtaccg taaatcgatt cctgcag 1477
54 <210> SEQ ID NO: 2
55 <211> LENGTH: 22
56 <212> TYPE: DNA
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Primer for L. fainei.
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RAW SEQUENCE LISTING                    DATE: 01/18/2001
PATENT APPLICATION:  US/09/380,826A     TIME: 16:14:19

Input Set : A:\Pto.amc
Output Set: N:\CRF3\01182001\I380826A.raw

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 62 <400> SEQUENCE: 2
 63 tgttggatca caagatttga ta
 65 <210> SEQ ID NO: 3
 66 <211> LENGTH: 19
 67 <212> TYPE: DNA
 68 <213> ORGANISM: Artificial Sequence
 70 <220> FEATURE:
 71 <223> OTHER INFORMATION: Primer for L. fainei.
 73 <400> SEQUENCE: 3
 74 ttcaccgcta cacctggaa                                   19
 76 <210> SEQ ID NO: 4
 77 <211> LENGTH: 7
 78 <212> TYPE: DNA
 79 <213> ORGANISM: Artificial Sequence
 81 <220> FEATURE:
 82 <223> OTHER INFORMATION: Primer for L. fainei.
 84 <400> SEQUENCE: 4
 85 tgttgga                                                7
 87 <210> SEQ ID NO: 5
 88 <211> LENGTH: 7
 89 <212> TYPE: DNA
 90 <213> ORGANISM: Artificial Sequence
 92 <220> FEATURE:
 93 <223> OTHER INFORMATION: Primer for L. fainei.
 95 <400> SEQUENCE: 5
 96 tttgata                                                7
 98 <210> SEQ ID NO: 6
 99 <211> LENGTH: 22
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <221> NAME/KEY: misc_feature
105 <222> LOCATION: (1)...(22)
106 <223> OTHER INFORMATION: n = A,T,C or G
108 <223> OTHER INFORMATION: Primer for L. fainei.
110 <400> SEQUENCE: 6
111 tgttggannn nnnnntttga ta                               22
113 <210> SEQ ID NO: 7
114 <211> LENGTH: 22
115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Primer for L. fainei.
121 <400> SEQUENCE: 7
122 tgttggatca caagatttga ta                               22
124 <210> SEQ ID NO: 8
125 <211> LENGTH: 200
126 <212> TYPE: DNA
127 <213> ORGANISM: Leptospira inadai
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RAW SEQUENCE LISTING
PATENT APPLICATION:  US/09/380,826A

DATE: 01/18/200
TIME: 16:4:19

Input Set : A:\Pto.amc
Output Set: N:\CRF3\01182001\I380826A.raw

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130 ccgagtctgg gataactttc cgaaaggaaa gctaataccg gatagtccta ctggatcaca 60
131 ggatctgata ggtaaagatt tattgcttgg agatgagccc gcggccgatt agctagttgg 120
132 tgaggtaaag gctcaccaag gcgacgatcg gtagccggcc tgagagggtg tccggccaca 180
133 atggaactga gacacggtcc                                               200
135 <210> SEQ ID NO: 9
136 <211> LENGTH: 200
137 <212> TYPE: DNA
138 <213> ORGANISM: Leptospira meyeri
140 <400> SEQUENCE: 9
141 ccgagtctgg gataactttt cgaaagggaa gctaatactg gatagtcccg agagatcata 60
142 agatttttcg ggtaaagatt cattgcttgg agatgagccc gcgtccgatt agctagttgg 120
143 tgaggtaatg gctcaccaag gcgacgatcg gtagccggcc tgagagggtg ttcggccaca 180
144 atggaactga gacacggtcc                                               200
146 <210> SEQ ID NO: 10
147 <211> LENGTH: 200
148 <212> TYPE: DNA
149 <213> ORGANISM: Leptospira weilii
151 <400> SEQUENCE: 10
152 ccgagtctgg gataactttc cgaaaggggа gctaatactg gatggtcccg agaggtcata 60
153 tgatttttcg ggtaaagatt tattgctcgg agctgagccc gcgcccgatt agctagttgg 120
154 tgaggtaatg gctcaccaag gcgacgatcg gtagccggcc tgagagggtg ttcggccaca 180
155 atggaactga gacacggtcc                                               200
157 <210> SEQ ID NO: 11
158 <211> LENGTH: 200
159 <212> TYPE: DNA
160 <213> ORGANISM: Leptospira santarosi
162 <400> SEQUENCE: 11
163 ccgagtctgg gataactttc cgaaagggga gctaatactg gatagtcccg atagatcata 60
164 ggatgtatcg ggtaaagatt cattgctcgg agatgagccc gcgcccgatt agctagttgg 120
165 tgaggtaaag gctcaccaag gcgacgatcg gtaaccggcc tgagagggtg ttcggccaca 180
166 atggaactga gacacggtcc                                               200
168 <210> SEQ ID NO: 12
169 <211> LENGTH: 200
170 <212> TYPE: DNA
171 <213> ORGANISM: Leptospira borgpetersenii
173 <400> SEQUENCE: 12
174 ccgagtctgg gataactttc cgaaagggga gctaatactg gatagtcccg agaggtcata 60
175 ggatttttcg ggtaaagatt tattgctcgg agatgagccc gcgcccgatt agctagttgg 120
176 tgaggtaatg gctcaccaag gcgacgatcg gtagccggcc tgagagggtg ttcggccaca 180
177 atggaactga gacacggtcc                                               200
179 <210> SEQ ID NO: 13
180 <211> LENGTH: 200
181 <212> TYPE: DNA
182 <213> ORGANISM: Leptospira noguchii
184 <400> SEQUENCE: 13
185 ccgagtctgg gataactttc cgaaagggaa gctaatactg gatagtcccg agagatcata 60
186 agatttttcg ggtaaagatt cattgctcgg agatgagccc gcgtccgatt agctagttgg 120
187 tgaggtaatg gctcaccaag gcgacgatcg gtagccggcc tgagagggtg ttcggccaca 180
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RAW SEQUENCE LISTING                    DATE: 01/18/2001
PATENT APPLICATION:   US/09/380,826A    TIME: 16:14:19

Input Set : A:\Pto.amc
Output Set: N:\CRF3\01182001\I380826A.raw

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188 atggaactga gacacggtcc                                              200
190 <210> SEQ ID NO: 14
191 <211> LENGTH: 200
192 <212> TYPE: DNA
193 <213> ORGANISM: Leptospira kirschneri
195 <400> SEQUENCE: 14
196 ccgagtctgg gataactttc cgaaagggaa gctaatactg gatggtcccg agagatcata 60
197 agatttttcg ggtaaagatt tattgctcgg agatgagccc gcgtccgatt asctagttgg 120
198 tgaggtaaag gctcaccaag gcgacgatcg gtagccggcc tgagagggtg ttcggccaca 180
199 atggaactga gacacggtcc                                              200
201 <210> SEQ ID NO: 15
202 <211> LENGTH: 200
203 <212> TYPE: DNA
204 <213> ORGANISM: Leptospira interrogans
206 <400> SEQUENCE: 15
207 ctgagtctgg gataactttc cgaaagggaa gctaatactg gatggtcccg agagatcata 60
208 agatttttcg ggtaaagatt tattgctcgg agatgagccc gcgtccgatt agctagttgg 120
209 tgaggtaaag gctcaccaag gcgacgatcg gtagccggcc tgagagggtg ttcggccaca 180
210 atggaactga gacacggtcc                                              200
212 <210> SEQ ID NO: 16
213 <211> LENGTH: 29
214 <212> TYPE: DNA
215 <213> ORGANISM: Artificial Sequence
217 <220> FEATURE:
218 <223> OTHER INFORMATION: Primer 27F for Leptospira species.
220 <400> SEQUENCE: 16
221 catggatcca gagtttgatc mtggctcag                                    29
223 <210> SEQ ID NO: 17
224 <211> LENGTH: 16
225 <212> TYPE: DNA
226 <213> ORGANISM: Artificial Sequence
228 <220> FEATURE:
229 <223> OTHER INFORMATION: Primer 530F for Leptospira species.
231 <400> SEQUENCE: 17
232 gtgccagcmg ccgcgg                                                  16
234 <210> SEQ ID NO: 18
235 <211> LENGTH: 20
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Primer 926F for Leptospira species.
242 <400> SEQUENCE: 18
243 aaactyaaak gaattgacgg                                              20
245 <210> SEQ ID NO: 19
246 <211> LENGTH: 18
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Primer LU for Leptospira species.
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```
253 <400> SEQUENCE: 19
254 cggcgcgtct taaacatg                                              18
256 <210> SEQ ID NO: 20
257 <211> LENGTH: 20
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: Primer C for Leptospira species.
264 <400> SEQUENCE: 20
265 caagtcaagc ggagtagcaa                                            20
267 <210> SEQ ID NO: 21
268 <211> LENGTH: 15
269 <212> TYPE: DNA
270 <213> ORGANISM: Artificial Sequence
272 <220> FEATURE:
273 <223> OTHER INFORMATION: Primer 1392R for Leptospira species.
275 <400> SEQUENCE: 21
276 acgggcggtg tgtrc                                                 15
278 <210> SEQ ID NO: 22
279 <211> LENGTH: 15
280 <212> TYPE: DNA
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Primer 1100R for Leptospira species.
286 <400> SEQUENCE: 22
287 gggttgcgct cgttg                                                 15
289 <210> SEQ ID NO: 23
290 <211> LENGTH: 18
291 <212> TYPE: DNA
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Primer 519R for Leptospira species.
297 <400> SEQUENCE: 23
298 gwattaccgc ggckgctg                                              18
300 <210> SEQ ID NO: 24
301 <211> LENGTH: 19
302 <212> TYPE: DNA
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Primer rLP for Leptospira species.
308 <400> SEQUENCE: 24
309 accatcatca catygctgc                                             19
311 <210> SEQ ID NO: 25
312 <211> LENGTH: 21
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
317 <223> OTHER INFORMATION: Primer B for Leptospira species.
319 <400> SEQUENCE: 25
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VERIFICATION SUMMARY
PATENT APPLICATION:  US/09/380,826A

DATE: 01/18/2001
TIME: 16:14:20

Input Set : A:\Pto.amc
Output Set: N:\CRF3\01182001\I380826A.raw

L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

1645

```
            RAW SEQUENCE LISTING           DATE: 01/10/2001
            PATENT APPLICATION:  US/09/380,826A     TIME: 11:05:14

            Input Set : A:\DAVIE79SEQLIST.TXT
            Output Set: N:\CRF3\01102001\I380826A.raw
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     4 <110> APPLICANT: Chappel, Rod
     6 <120> TITLE OF INVENTION: LEPTOSPIRA PATHOGENS
     9 <130> FILE REFERENCE: DAVIE79.001APC
    11 <140> CURRENT APPLICATION NUMBER: 09/380,826A
    12 <141> CURRENT FILING DATE: 1999-11-22
    14 <150> PRIOR APPLICATION NUMBER: PCT/AU98/00145
    15 <151> PRIOR FILING DATE: 1998-03-06
    17 <150> PRIOR APPLICATION NUMBER: AU PO5494/97
    18 <151> PRIOR FILING DATE: 1997-03-07
    20 <160> NUMBER OF SEQ ID NOS: 26
    22 <170> SOFTWARE: FastSEQ for Windows Version 4.0


ERRORED SEQUENCES

   324 <210> SEQ ID NO: 26
   325 <211> LENGTH: 23
   326 <212> TYPE: DNA
   327 <213> ORGANISM: Artificial Sequence
   329 <220> FEATURE:
   330 <223> OTHER INFORMATION: Primer INT rLP for Leptospira species.
   332 <400> SEQUENCE: 26
   333 ttttttttcc ctgcttactg aac                                    23
E--> 334 6
E--> 337 1
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**VERIFICATION SUMMARY**
PATENT APPLICATION:  US/09/380,826A

DATE: 01/10/2001
TIME: 11:05:15

Input Set : A:\DAVIE79SEQLIST.TXT
Output Set: N:\CRF3\01102001\I380826A.raw

L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:334 M:254 E: No. of Bases conflict, LENGTH:Input:6 Counted:23 SEQ:26
M:254 Repeated in SeqNo=26